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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/594,198

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David L. Hauser

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EXAMINER

HORNBERGER, JENNIFER LEA

ART UNIT

PAPER NUMBER

3734

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/594,198	Applicant(s) HAUSER ET AL.	
	Examiner JENNIFER L. HORNBERGER	Art Unit 3734	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The specification fails to disclose an impeller.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 18, 19, 22, 24, 26-28, 31, 33, 35, and 36 are rejected under 35 U.S.C. 102(e) as being anticipated by Poll (US 2005/0059981).

Regarding claim 18, Poll discloses a vascular filter, comprising: an expandable filter body (16) configured to be implanted in a blood vessel; and an agitation member (18) movably coupled to the filter body (paragraph 39, Figs. 1-3); wherein the agitation member (42) is adapted to break apart particles captured within the filter body (paragraph 43).

Regarding claim 19, Poll discloses the agitation member (42) is located substantially within an interior volume of the filter body (Fig. 1-3).

Regarding claim 22, Poll discloses an elongate drive mechanism (18) configured for removable attachment to the agitation member (42) for causing the agitation member to rotate (paragraph 47).

Regarding claim 24, Poll discloses an energy storage device (48) for causing the agitation member to rotate (paragraph 47).

Regarding claim 26, Poll discloses the agitation member (42) is configured to vibrate for breaking apart the particle (paragraph 47).

Regarding claim 27, Poll discloses the agitation member (42) vibrates at ultrasonic frequencies (paragraph 47).

Regarding claim 28, Poll discloses an energy storage device (48) coupled to the filter body for producing movement of the agitation member (paragraph 47).

Regarding claim 31, Poll discloses an implantable device configured to capture and macerate emboli within a blood vessel, comprising: an expandable filter body (16) configured to be implanted in a blood vessel; an agitation member (54) located substantially within an interior volume of the filter body (Fig. 3); and a drive mechanism (52) for rotating the agitation member with respect to the filter body (Fig. 13); wherein the agitation member is configured to macerate emboli captured within the filter body (paragraph 43).

Regarding claim 33, Poll discloses the drive mechanism comprises an elongate drive catheter (14) coupled to the agitation member (54).

Regarding claim 35, Poll discloses the drive mechanism comprises an energy storage device (48) coupled to the agitation member (paragraph 47).

Regarding claim 36, Poll discloses a device configured to improve blood flow through a blood vessel, comprising: an expandable filter body (16) configured to engage

an inner wall of a blood vessel; an agitation member (54) rotatably coupled to the filter body; and a drive mechanism (52) for rotating the agitation member with respect to the filter body (fig. 13); wherein the agitation member is advanceable relative to the filter body for breaking apart occlusive material within the blood vessel and wherein the filter body is configured to capture particles of the occlusive material (Fig. 8-12).

4. Claims 18-21, 23, and 30-34, 36, and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Demarais et al. (US 2002/0151906).

Regarding claim 18, Demarais et al. disclose a vascular filter, comprising: an expandable filter body (26) configured to be implanted in a blood vessel; and an agitation member (40) movably coupled to the filter body (paragraph 42); wherein the agitation member (42) is adapted to break apart particles captured within the filter body (paragraph 46).

Regarding claim 19, Demarais et al. disclose the agitation member (40) is located substantially within an interior volume of the filter body (Fig. 1).

Regarding claim 20, Demarais et al. disclose a flow- receiving member (48) for causing the agitation member to rotate relative to the filter body.

Regarding claim 21, Demarais et al. disclose the agitation member is configured to reverse direction in that the agitation member is capable of reversing direction.

Regarding claim 23, Demarais et al. disclose a clutch mechanism (24) such that the agitation member is capable of moving relative to the filter body only when a particle is trapped within the filter body.

Regarding claim 30, Demarais et al. disclose an aspiration catheter (12) for aspirating particles (paragraph 50).

Regarding claim 31 Demarais et al. disclose an implantable device configured to capture and macerate emboli within a blood vessel, comprising: an expandable filter body (26) configured to be implanted in a blood vessel; an agitation member (40) located substantially within an interior volume of the filter body (Fig. 1); and a drive mechanism (14) for rotating the agitation member with respect to the filter body (paragraph 42); wherein the agitation member is configured to macerate emboli captured within the filter body (paragraph 46).

Regarding claim 32, Demarais et al. disclose the drive mechanism comprises an impeller (48) configured to be rotated by blood flowing through the blood vessel (paragraph 48).

Regarding claim 33, Demarais et al. disclose the drive mechanism comprises an elongate drive catheter (22) coupled to the agitation member (40, paragraph 46).

Regarding claim 34, Demarais et al. disclose an aspiration catheter (12) configured for advancement along the elongate drive catheter (paragraph 48).

Regarding claim 36, Demarais et al. disclose a device configured to improve blood flow through a blood vessel, comprising: an expandable filter body (26) configured to engage an inner wall of a blood vessel (element 304, Fig. 9); an agitation member (40) rotatably coupled to the filter body; and a drive mechanism (22) for rotating the agitation member with respect to the filter body (paragraph 46); wherein the agitation member is advanceable relative to the filter body for breaking apart occlusive material within the blood vessel and wherein the filter body is configured to capture particles of the occlusive material (Fig. 9).

Regarding claim 37, Demarais et al. disclose an aspiration catheter (12) configured for advancement along the elongate drive catheter (paragraph 48).

Claim Rejections - 35 USC § 103

5. Claim 24 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Demarais et al. (US 2002/0151906) in view of Poll (US 2005/0059981).

Regarding claim 24, Demarais et al. fails to disclose an energy storage device for causing the agitation member to rotate. Poll discloses an energy storage device (48) for causing the agitation member to rotate (paragraph 47). Therefore, it would have been obvious to substitute the drive mechanism of Demarais et al. with an energy storage device to achieve the same predictable result of causing rotation of the agitation member. Substitution of one known element for another element providing the same function to yield predictable results would have been obvious to one of ordinary skill in the art at the time of the invention.

Regarding claim 35, Demarais et al. fails to disclose an energy storage device for causing the agitation member to rotate. Poll discloses an energy storage device (48) for causing the agitation member to rotate (paragraph 47). Therefore, it would have been obvious to substitute the drive mechanism of Demarais et al. with an energy storage device to achieve the same predictable result of causing rotation of the agitation member. Substitution of one known element for another element providing the same function to yield predictable results would have been obvious to one of ordinary skill in the art at the time of the invention.

6. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Demarais et al. (US 2002/0151906) in view of Bajaj (US 5,053,008).

Regarding claim 25, Demarais et al. fails to disclose an electronic sensor for detecting the presence of particles within the filter body. Bajaj discloses a vascular filter having sensors (54 and 56) for detecting the presence of particles within the filter body

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(18) (col. 9, ln. 11-16). It would have been obvious to one of ordinary skill in the art to provide electric sensors in the device of Demarais et al. in view of Bajaj in order to provide a means of alerting the physician of a clot or triggering the maceration of the clot.

7. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Demarais et al. (US 2002/0151906) in view of Leeftang et al. (US 6,635,070)

Regarding claim 29, Demarais et al. disclose the tubular shaft (22) has infusion ports for infusing agents for used in connection with clot disruption, but fails to disclose pressurized fluid flow. Leeftang et al. disclose pressurized fluid flow for preventing particles from passing distally downstream (col. 18, ln. 25-30). Therefore, it would have been obvious to provide modify the agitation member of Demarais et al. to emit a pressurized fluid flow to prevent particles from passing distally downstream of the agitation member.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JENNIFER L. HORNBERGER whose telephone number is (571)270-3642. The examiner can normally be reached on Monday through Friday from 8am-5pm, Eastern time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Todd Manahan can be reached on (571)272-4713. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

jlh
7/3/08

/Todd E Manahan/
Supervisory Patent Examiner, Art Unit 3731